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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,383	12/09/2003	Ashutosh K. Jha	NVDA P000862	4536

26291 7590 08/05/2008

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EXAMINER	
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ART UNIT	PAPER NUMBER
2145	

MAIL DATE	DELIVERY MODE
08/05/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/731,383
Filing Date: December 09, 2003
Appellant(s): JHA ET AL.

Jha et al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/24/2008 appealing from the Office action mailed 01/18/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims should include: Claims 28-31 and 36 have been canceled. Therefore, their dependent claims should not be depended on them anymore. For the purpose of prosecution, the examiner treats claims 35 to depend on claim 1 and claim 37 to depend on claim 34.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is incorrect. Claim 4 is rejected under 35 USC § 103 (a) as unpatentable over Pinkerton in view of Boyd and Lanteigne and further in view of Boucher (US 6,436,620), and claims

39 and 41 are rejected under 35 USC § 103 (a) as unpatentable over Pinkerton in view of Boyd and Lanteigne and further in view of Boucher (US 6,965,941 B2).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2006/0069792	Pinkerton et al.	04-2002
2004/0049601	Boyd et al.	09-2002
6,757,756	Lanteigne et al.	12-1998
6,436,620	Boucher et al.	08-1998
2002/0145976	Meyer et al.	04-2002
6,965,941	Boucher et al.	10-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Objections

1. Claims 35 and 37 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since claim 31 and 36 are cancelled, for the purpose of examination, the examiner treats these claims to depend on claims 1 and 34 respectively.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3, 5-10, 13-25, 27, 32-38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pinkerton et al. (publication no.: US 2006/0069792 A1)** in view of **Boyd et al. (publication no.: US 2004/0049601 A1)** and **Lanteigne et al. (Patent no.: US 6,757,756 B1).**

With respect to **claim 1,** Pinkerton teaches a method of communicating between a TCP stack, wherein the TCP stack delegates one or more connections to the offload unit, and the TCP stack processes connections that are not delegated or require special processing, and an offload unit, comprising:

utilizing a driver as a translator for writing a command including an index corresponding to a delegated connection to an entry in a command linked list (Pinkerton, page 4, paragraphs 40 and 41, noted that the intermediate layer 206 receives and passes the command to the peripheral device 204, wherein the command

includes the index of the connection states, CONST, CAHCED and DELEGATED, where the peripheral device 204 has a linked list in storing the parameter information. Noted that the linked list is a type of data structure as applicant's definition of Ring is in the specification);

indicating an ownership of the entries in the command linked list (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60, noted that the maintenance of ownership of the connection state in the linked list);

reading the command from the entry in the command linked list to the offload unit (Pinkerton, page 4, paragraph 41, noted that the command is read back when the offload is terminated);

transferring an ownership of the entry in the command linked list to TCP stack (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60).

executing the command (Pinkerton, page 4, paragraph 41, noted the transferring of the connection state index DELEGATED variable); and

writing command specific status to the entry in the command linked list by the offload unit (Pinkerton, page 4, paragraph 41, noted the transferring of the connection state variables, CONST, CACHED, and DELEGATED).

However, Pinkerton does not explicitly teach that the linked list is a circular or ring data structure, and indicating the ownership of the entries in the command linked list buffer by a pointer bit.

In an analogous art, Boyd teaches a circular linked list (Boyd, page 9, paragraph 118, noted the circular linked list) in queuing the data information.

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to substitute the circular linked list as taught by Boyd with the command ring in Pinkerton's invention in order to provide an efficient and time saving benefit in moving the pointer on the list from the last index to the first index.

However, the combined method of Pinkerton and Boyd does not explicitly teach a method of indicating the ownership of the entries in a command linked list buffer by a pointer bit.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention to substitute the method of indicating the ownership in the entries of a control ring buffer by the use of write and read pointers as taught by Lanteigne in the modified combined method of Pinkerton's and Boyd's invention in order to handle the high frequency payload type messaging between the software applications and firmware (Lanteigne: col. 6, lines 32-43).

With respect to **claim 2,** Pinkerton teaches the method of claim 1, wherein the command includes a location of a buffer for storing payload data produced by the offload unit (Pinkerton, page 5, paragraph 43, noted that the data is stored in the buffer).

With respect to **claim 3,** Pinkerton teaches the method of claim 1, wherein the command includes connection information needed to setup a delegated connection

(Pinkerton, page 7, paragraph 61, noted the DELEGATED connection state includes information such as, sequence number of the received packets).

With respect to **claim 5**, Pinkerton teaches the method of claim 1, further comprising: writing a notification descriptor including an index corresponding to a delegated connection to an entry in a notification ring (Pinkerton, page 4, paragraph 41, noted that the intermediate layer receives the command including the index of the connection states, CONST, CAHCED and DELEGATED); and reading the notification descriptor from the entry in the notification ring (Pinkerton, page 4, paragraph 41, noted that the command is read back when the offload is terminated).

With respect to **claim 6**, Pinkerton teaches the method of claim 5, wherein the notification descriptor includes one or more notification flags indicating specific information for a connection (Pinkerton, page 11, paragraph 94, noted the flag to indicate that the connection is updated).

With respect to **claim 7,** Pinkerton teaches a method of communicating between a TCP stack and an offload unit, wherein the TCP stack delegates one or more connections to the offload unit, the TCP stack processing connections that are not delegated or require special processing comprising:

writing a notification descriptor to an entry in a notification linked list by the offload unit (Pinkerton, page 4, paragraphs 40 and 41, noted that the intermediate layer 206 receives and passes the command to the peripheral device 204 in notifying the peripheral device the state of the connection, wherein the command includes the index of the connection states, CONST, CAHCED and DELEGATED, where the peripheral

device 204 has a linked list in storing the parameter information. Noted that the linked list is a type of data structure as applicant's definition of Ring is in the specification);

indicating an ownership of the entry in the linked list (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60, noted that the maintenance of ownership of the connection state in the linked list);

utilizing a driver as a translator for reading the notification descriptor from the entry in the notification linked list (Pinkerton, page 4, paragraph 41, noted that the command is read back when the offload is terminated);

reading the notification descriptor from the entry in the notification linked list to the TCP stack based on the ownership of the entry (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60);

determining connection information for a delegated connection based on the notification descriptor (Pinkerton, page 11, paragraph 91).

However, Pinkerton does not explicitly teach that the linked list is a circular or ring data structure, and indicating the ownership of the entries in the notification linked list buffer by a pointer bit.

In an analogous art, Boyd teaches a circular linked list (Boyd, page 9, paragraph 118, noted the circular linked list) in queuing the data information.

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to substitute the circular linked list as taught by Boyd with the command ring in Pinkerton's invention in order to provide an efficient and time saving benefit in moving the pointer on the list from the last index to the first index.

However, the combined method of Pinkerton and Boyd does not explicitly teach a method of indicating the ownership of the entries in a command linked list buffer by a pointer bit.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention to substitute the method of indicating the ownership in the entries of a control ring buffer by the use of write and read pointers as taught by Lanteigne in the modified combined method of Pinkerton's and Boyd's invention in order to handle the high frequency payload type messaging between the software applications and firmware (Lanteigne: col. 6, lines 32-43).

With respect to **claim 8,** Pinkerton teaches the method of claim 7, wherein the notification descriptor includes an index corresponding to the delegated connection (Pinkerton, page 4, paragraph 41, noted that the command including the index of the connection states, CONST, CAHCED and DELEGATED).

Regarding **claim 9**, the limitations of this claim are substantially the same as those in claim 6. Therefore the same rationale for rejecting claim 6 is used to reject claim 9. By this rationale **claim 9** is rejected.

With respect to **claim 10,** the method of claim 7, wherein the notification descriptor includes a count of received acknowledgements (It is inherent for TCP protocol to have this feature).

With respect to **claim 13,** Pinkerton teaches the method of claim 8, wherein a flag indicates a sequence number threshold was reached on the delegated connection (Pinkerton, page 7, paragraph 61, noted the sequence number).

With respect to **claim 14,** Pinkerton teaches the method of claim 8, wherein a flag indicates at least a portion of frame data received on the delegated connection was uploaded by the offload unit to a legacy buffer (Pinkerton, page 5, paragraph 44).

With respect to **claim 15,** Pinkerton teaches the method of claim 8, wherein a flag indicates a request for a user buffer for uploading of payload data from the offload unit (Pinkerton, page 5, paragraph 44).

Regarding **claim 16**, the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 16. By this rationale **claim 16** is rejected.

Regarding **claim 17**, the limitations of this claim are substantially the same as those in claim 3. Therefore the same rationale for rejecting claim 3 is used to reject claim 17. By this rationale **claim 17** is rejected.

With respect to **claim 18,** Pinkerton teaches the system of claim 16, wherein the offload unit is configured to write command specific status to the command ring (Pinkerton, page 4, paragraph 41, noted the transferring of the connection state variables, CONST, CACHED, and DELEGATED).

With respect to **claim 19**, Pinkerton teaches the system of claim 16, further comprising a transmit descriptor ring configured to transfer transmit buffer information from the TCP stack to the offload unit (Pinkerton, page 6, paragraph 57).

With respect to **claim 20,** Pinkerton teaches the system of claim 19, wherein the transmit buffer information includes a delegated connection index (Pinkerton, page 4, paragraph 41, noted that the intermediate layer receives the command including the index of the connection states, CONST, CAHCED and DELEGATED).

With respect to **claim 21**, Pinkerton teaches the system of claim 16, further comprising a receive descriptor ring configured to transfer receive buffer information from the TCP stack to the offload unit (Pinkerton, page 6, paragraph 57).

Regarding **claim 22**, the limitations of this claim are substantially the same as those in claim 7. Therefore the same rationale for rejecting claim 7 is used to reject claim 22. By this rationale **claim 22** is rejected.

Regarding **claim 23**, the limitations of this claim are substantially the same as those in claim 6. Therefore the same rationale for rejecting claim 6 is used to reject claim 23. By this rationale **claim 23** is rejected.

Regarding **claim 24**, the limitations of this claim are substantially the same as those in claim 14. Therefore the same rationale for rejecting claim 14 is used to reject claim 24. By this rationale **claim 14** is rejected.

Regarding **claim 25**, the limitations of this claim are substantially the same as those in claim 13. Therefore the same rationale for rejecting claim 13 is used to reject claim 25. By this rationale **claim 25** is rejected.

Regarding **claim 27**, the limitations of this claim are substantially the same as those in claim 10. Therefore the same rationale for rejecting claim 10 is used to reject claim 27. By this rationale **claim 27** is rejected.

With respect to **claim 32,** Pinkerton teaches a method as claimed in claim 1, wherein when the offload unit writes the entry to the command ring, the ownership of the entry is set to indicate that the entry is owned by the offload unit (Pinkerton: page 4, paragraph 41).

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a write pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a write pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 32.

With respect to **claim 33,** Pinkerton teaches a method as claimed in claim 1, wherein when the offload unit writes the entry to the command ring, the ownership of the entry is set to indicate that the entry is owned by the TCP stack (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60).

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a read pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a read pointer bit (Lanteigne: fig. 8, col. 3,

lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 33.

Regarding **claim 34**, the limitations of this claim are substantially the same as those in claim 33. Therefore the same rationale for rejecting claim 33 is used to reject claim 34. By this rationale **claim 34** is rejected.

With respect to **claim 35,** Pinkerton teaches a method as claim in claim 1, wherein at startup the ownership of the entries owned by the TCP stack (Pinkerton: page 4, paragraphs 40-41).

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a read pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 35.

With respect to **claim 36,** Pinkerton teaches all the claimed limitations except that he does not explicitly teach a method of indicating an ownership to an entry of a command linked list buffer by a Command Read Pointer and a Command Write Pointer.

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a read pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 36.

With respect to **claim 37,** Pinkerton teaches a method as claims in claim 36, including the step of the offload unit using the ring to notify the TCP stack of offloaded connections needing further processing by the TCP stack (Pinkerton: page 7, paragraph 60, and page 11, paragraph 88).

With respect to **claim 38,** Pinkerton teaches the system of claim 22, wherein the offload unit is configured to process the commands for the one or more connections that are delegated to the offload unit and set the ownership in any entries in the command ring that are read by the offload unit (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60).

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a read pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 38.

With respect to **claim 40,** Pinkerton teaches the method of claim 5, further comprising setting the ownership in the entry in the notification ring by the offload unit indicating that the entry is owned by the TCP stack when the notification descriptor is written (Pinkerton: page 4, paragraph 41, and page 7, paragraph 60).

However, Pinkerton does not explicitly teach a method of indicating the ownership of an entry to a command linked list buffer by a pointer.

In an analogous art, Lanteigne teaches a method of indicating the ownership of the entries in a command linked list buffer by a read pointer bit (Lanteigne: fig. 8, col. 3, lines 25-34, col. 6, lines 15-31, and col. 20, lines 21-40, noted the indication of the ownership in the entries of the control ring buffer by use of write and read pointers). The same motivation used in claim applies equally as well to claim 40.

5. Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pinkerton et al. (publication no.: US 2006/0069792 A1)** in view of **Boyd et al. (publication no.: US 2004/0049601 A1)** and **Lanteigne et al. (Patent no.: US 6,757,756 B1)** and further in view of **Boucher et al. (Patent no.: US 6,436,620 B1).**

With respect to **claim 4,** the combined system of Pinkerton, Boyd and Lanteigne teaches all the claimed limitations, except that they do not explicitly teach a value representing a number of buffers accepted by the offload unit.

In the same field of endeavor, Boucher teaches a value representing a number of buffers accepted by the offload unit (Boucher, col. 13, lines 8-26, noted the number of buffers in the block).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method of indicating the number of buffers in the block as taught by Boucher in the combined system of Pinkerton, Boyd and Lanteigne invention in order to calculate the threshold of the packets that the system can handle and reduce the traffic.

6. Claims 11, 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pinkerton et al. (publication no.: US 2006/0069792 A1)** in view of **Boyd et al. (publication no.: US 2004/0049601 A1)** and **Lanteigne et al. (Patent no.: US 6,757,756 B1)** and further in view of **Meyer et al. (Publication no.: US 2002/0145976 A1).**

With respect to **claim 11,** a combined system of Pinkerton, Boyd and Lanteigne teaches all the claimed limitations, except that they do not explicitly teach a flag indicates an acknowledgement threshold was reached on the delegated connection.

In the same field of endeavor, Meyer teaches a flag indicates an acknowledgement threshold was reached on the delegated connection (Meyer, page 3, paragraph 39, noted the duplicate acknowledgement threshold).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the flag of the duplicate acknowledgement threshold as taught by Meyer in the combined system of Pinkerton's, Boyd's and Lanteigne's invention in order to indicate the time for a given segment for

which duplicate acknowledgement are being received is assumed to have been lost (Meyer, page 3, paragraph 39).

Regarding **claim 12**, the limitations of this claim are substantially the same as those in claim 11. Therefore the same rationale for rejecting claim 11 is used to reject claim 12. By this rationale **claim 12** is rejected.

Regarding **claim 26**, the limitations of this claim are substantially the same as those in claim 11. Therefore the same rationale for rejecting claim 11 is used to reject claim 26. By this rationale **claim 26** is rejected.

7. Claims 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Pinkerton et al. (publication no.: US 2006/0069792 A1)** in view of **Boyd et al. (publication no.: US 2004/0049601 A1)** and **Lanteigne et al. (Patent no.: US 6,757,756 B1)** and further in view of **Boucher et al. (Patent no.: US 6,965,941 B2).**

With respect to **claim 41,** the combined method of Pinkerton, Boyd, and Lanteigne teaches all the claimed limitations, except that they do not explicitly teach a method setting a synchronization request flag in the notification descriptor; and flushing unused user buffer descriptors queued in the offload unit for the delegated connection, wherein the unused buffer descriptors specify locations of buffers for storing payload data produced by the offload unit.

In an analogous art, Boucher teaches a method setting a synchronization request flag in the notification descriptor (Boucher: col. 27, lines 23-49, noted the synchronization pointer); and flushing unused user buffer descriptors queued in the

offload unit for the delegated connection, wherein the unused buffer descriptors specify locations of buffers for storing payload data produced by the offload unit (Boucher: col. 32, lines 34-48).

Therefore it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the method of using a synchronization pointer and flushing the unused buffer as taught by Boucher in the combined method of Pinkerton's, Boyd's and Lanteigne's invention in order to maintain the packet processing and determine the availability of data in buffer (Boucher: col. 27, lines 44-49).

Regarding **claim 39**, the limitations of this claim are substantially the same as those in claim 41. Therefore the same rationale for rejecting claim 41 is used to reject claim 39. By this rationale **claim 39** is rejected.

(10) Response to Argument

Appeal argues claims 1, 7, 16 and 22

8. On pages 10-11 of Appellant's Brief, Appellant argues that "Nowhere does Pinkerton teach or suggest indicating ownership of any of the entries in the linked list." And "Pinkerton fails to teach or suggest that a bit in an entry in a command or notification ring is set to indicate the owner of the entry is the TCP stack". This argument is not deemed persuasive.

In response to Appellant's argument, the examiner disagrees. The transferring of the ownership of parameters in the linked list to TCP stack is taught by Pinkerton in page 4, paragraphs 38, 40 &41, noted that the intermediate software layer 206 is part of

the network stack 202, which is substantially the same element as "TCP stack", which receives a linked list of parameter information from the offload unit (peripheral device 204). Therefore, presently claimed invention is not patentable over Pinkerton in view of Boyd and Lanteigne.

9. On page 11, 2nd paragraph of Appellant's Brief, Appellant argues that "Nowhere does Boyd teach or suggest indicating ownership within each entry of the circular linked list".

In response to Appellant's argument, the examiner agrees that Boyd does not teach a method of "indicating ownership within each entry of the circular linked list". However, the whole purpose of combining the reference of Boyd with Pinkerton is to remedy the deficiency of not having a "circular linked list". The combination of reference Boyd and Pinkerton was explicitly addressed in the final action with an appropriated motivation to combine. The deficiency of "indicating ownership within each entry of the circular linked list with a pointer" is remedied by combination of reference Lanteigne. Therefore, presently claimed invention is not patentable over Pinkerton in view of Boyd and Lanteigne.

10. On page 11, 3rd paragraph of Appellant's Brief, Appellant argues that "A review of the Lanteigne reference, specifically column 9, lines 30-36, show that the read pointer and the write pointer are stored in Master Control Block 706 (see Figure 9. The control ring entries are stored in Control Ring 708. Therefore, neither the read pointer nor the

write pointer qualifies as a bit in an entry of the command or notification ring that indicates ownership of the entry".

In response to Appellant's argument, the examiner disagrees. The "control ring 708" disclosed by Lanteigne is substantially the same data structure (circular linked list) as taught by the combination of Pinkerton-Boyd and the "Command or notification ring" of Applicant's invention, but with additional features of having "read pointer" and "write pointer" in indicating which process is owning the access to the entry (Lanteigne: col. 9, lines 21-41, and col. 13, lines 47-59), which is substantially equivalent to the method of "indicating ownership within each entry of the circular linked list with a pointer". Therefore, presently claimed invention is not patentable over Pinkerton in view of Boyd and Lanteigne.

Appeal argues claim 2

11. On page 12, 2nd paragraph of Appellant's Brief, Appellant argues that "Pinkerton teaches that data packets are buffered when they cannot be processed. Nowhere does Pinkerton teach or suggest that the command includes a location of a buffer".
In response to Appellant's argument, the examiner disagrees. Pinkerton teaches that the peripheral device 204 buffers the data in page 5 paragraph 43. It is not only an inherent feature but also a must have step for a device to designate a location of a buffer before a data can be buffered. Hence, Pinkerton anticipates the features of claim 2.

Appeal argues claim 13

12. On page 12, 3rd paragraph of Appellant's Brief, Appellant argues that "Nowhere does Pinkerton teach or suggest a flag that indicates a sequence number threshold was reached".

In response to Appellant's argument, the examiner disagrees. It appears that the Appellant is misinterpreting the prior art of record by only citing a portion of the reference. Appellant is reminded that when reviewing a reference one should remember that not only a specific portion of a reference but viewing *entire the reference as whole*. In the case of Pinkerton, Pinkerton teaches "the maximum sequence number ever sent (SND.MAX)" in page 7 paragraph 61; this flag is substantially equivalent to "a flag that indicates a sequence number threshold was reached". Hence, Pinkerton anticipates the features of claim 13.

Appeal argues claims 4, 39 and 41

13. On pages 12-13 of Appellant's Brief, Appellant argues that "Boucher fails to teach a synchronization bit that is used to enable the offload unit to accept user buffer descriptors".

In response to Appellant's argument, the examiner disagrees. The examiner asserts that the teaching of "the data synchronization buffer read pointer" of Boucher (Boucher: col. 27, lines 23-49) is substantially equivalent to Applicant's "synchronization bit/flag".

Appellant argues claims 3, 5-6, 8-12, 14-15, 17-21, 23-27, 32-35, 37-38 and 40

14. Appellant's arguments toward these claims are relied upon the arguments addressed in claims 1, 7, 16 and 22, therefore again presently claimed invention is not patentable over Pinkerton in view of Boyd, Lanteigne, Boucher and Meyer.

(11) Related Proceeding(s) Appendix

15. No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/L. L./

/Lin Liu/

Examiner, Art Unit 2145

Conferees:

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145

/Rupal D. Dharia/
Supervisory Patent Examiner, Art Unit 2141